

1. The therapeutic composition comprising a cobalamin drug conjugate and a cytokine.
2. The composition of claim 1, wherein the cobalamin drug conjugate is a vitamin B<sub>12</sub> analog.
3. The therapeutic composition of claim 1, wherein the cobalamin drug conjugate is selected from the group consisting of hydroxocobalamin, cyanocobalamin, methylcobalamin, 5'deoxyadenocobalamin, nitrosylcobalamin, and radiolabeled vitamin B<sub>12</sub> analog.
4. The therapeutic composition of claim 1, further including a pharmaceutical carrier.
5. The therapeutic composition of claim 1, wherein the cytokine is an interferon- $\alpha$ .
6. A method of enhancing uptake of a cobalamin drug conjugate comprised of administering a cytokine and administering a cobalamin drug conjugate.
7. The method of claim 6, wherein said cobalamin the cobalamin drug conjugate is a vitamin B<sub>12</sub> analog.
8. The method of claim 6, wherein the cobalamin drug conjugate is selected from the group consisting of hydroxocobalamin, cyanocobalamin, methylcobalamin, 5'deoxyadenocobalamin, nitrosylcobalamin, and radiolabeled vitamin B<sub>12</sub> analog.
9. The method of claim 6, wherein the cytokine is administered with a pharmaceutical carrier.
10. The method of claim 6, wherein said cytokine is an interferon- $\alpha$ .
11. A method of increasing TCII-R activity in a subject to treat a condition favorably affected by an increase in said TCII-R activity comprising the step of administering to

a subject in need of such treatment a cytokine in an amount effective to increase TCII-R activity in the subject.

12. The method of claim 11, further comprising the step of co-administering a cobalamin drug conjugate.

13. The method of claim 12, wherein the cobalamin drug conjugate is a vitamin B<sub>12</sub> analog.

14. The method of claim 12, wherein the cobalamin drug conjugate is selected from the group consisting of hydroxocobalamin, cyanocobalamin, methylcobalamin, 5'-deoxyadenocobalamin, nitrosylcobalamin, and radiolabeled vitamin B<sub>12</sub> analog.

15. The method of claim 12, wherein said cytokine is administered prior to the cobalamin drug conjugate.

16. The method of claim 12, wherein said cytokine is administered prophylactically.

17. The method of claim 12, wherein said cytokine is administered acutely.

18. The method of claim 11, wherein said cytokine is an interferon- $\alpha$ .

19. The method of claim 11, wherein said condition is unwanted cellular proliferation.

20. The method of claim 11, wherein the cytokine is administered with a pharmaceutical carrier.